CLASSIFICATION ~~SECRET~~ ~~CONFIDENTIAL~~

CENTRAL INTELLIGENCE AGENCY REPORT NO. [redacted] 25X1

INFORMATION REPORT

CD NO.

COUNTRY Germany (Russian Zone)

DATE DISTR. 12 JUL 50

SUBJECT Personnel, Organization, Production and Research at the Oberspreewerke

NO. OF PAGES 7

PLACE ACQUIRED [redacted]

NO. OF ENCLS. (LISTED BELOW)

DATE OF INFO. [redacted] 25X1

SUPPLEMENT TO REPORT NO. [redacted] 25X1

[redacted]

25X1

25X1 [redacted]

Personnel Data:

1. The personnel policies at OSW seem to have been such as to result in large turnover. During the course of 1949, nineteen key men left OSW thus causing considerable impairment to the smooth functioning of the plant. Some research projects had to be abandoned or at least given a time extension and the percentage of goods rejected because of defects remained comparatively high. The fact that some improvements in the production process, which have been advertised for years in branch literature, have not been made at this plant is principally the result of existing personnel policies.

2. Following are an account of the principal changes in personnel at OSW, a list of the key personnel and also a survey of the working force:

a. Russians	Beginning 1949	End 1949
General Manager	Loshmanov	Glybin
Business Manager	Skornjakov	no change
Production Manager	Fedchenko	" "
Research Manager	Ivanov	" "
Former Technical Manager	Cherepnin (arrested as spy; replaced by Bladnova who was later recalled.)	
Former Chief of Oscillograph Research	Akulin (recalled)	
Former Chief of Tube Production	Xenophontov (recalled)	

b. Germans	Beginning 1949	End 1949
Technical Manager	Gruner (deceased)	Lorentz
Workers' Welfare Director	Wille (discharged)	Höding
Business Manager	Mätzig (discharged)	Reimann
Production Manager	Lorentz (promoted)	Stösser (?)
Research Manager	Dr. Strähler (resigned)	Dr. Hachenberg

The following left their positionswith OSW:

Beyer	X-ray specialist
Dr. Oertel	X-ray research
Thouret	Tube research - Discharge tubes

CLASSIFICATION ~~SECRET~~ ~~CONFIDENTIAL~~

STATE	X	NAVY	X	NSRB		DISTRIBUTION
ARMY	X	AIR	X	FBI		dec X

Ittig	Tube research - Spectral high-pressure lamps
Jost	" " - Hg high-pressure lamps
Kantorowski	" " -
Lau	Tube production
Hecht	" "
Gnaabs	Research - wave meters
Dr. Barth	" - special
Freitag	" - "
Dr. Wittke	" - atomic
Dr. Strähler	Technical Manager
Dr. Gemsa	Wire plant
Dr. Schlecht	Specialist for emission paste (discharged)
Schubert	General technological production (arrested on suspicion of espionage; has been released)
Dr. Ladurna	Research on metal ceramic triodes
Schöfer	Research on oscillating quartz
Höding	Workers' Welfare Director

Organization

3. The OSW was scheduled to be divided and socialized in the early months of 1949. However, at the end of 1949, everything was still unchanged except that OSW had been transferred from the SAG "Izolyator" to the SAG "Kabel". In addition, NEF and TBN (Technical Bureau for Communications) now belong to OSW. TBN was formed in September 1949 and is housed in the offices of the former Knorr-Bremse in Berlin-Lichtenberg. OSW was split into two divisions, one for production and one for research. While both are under the same administration, they work entirely independently. Great efforts are being made to seal off the Research Division from contact with the outside in order to insure secrecy for all projects. The efforts were redoubled after discovery of a few cases of espionage last summer. In some cases, drastic reorganization plans were made upon notification that large orders were in the offing. The hope was to bring about better utilization of existing production equipment, by use of double shifts, if need be. But the large orders never materialized and no changes were made.

Production

4. The present (April 1950) monthly production quota per worker is 800 DM (Ost) as compared to 1,000 DM (Ost) early in the year. All attempts to raise the output per worker have been fruitless. At the beginning of 1949, orders were very low, generally. SAG "Kabel", for instance, had orders amounting to only 5 million DM, 30% less than in 1948. The OSW, which at that time still belonged to SAG "Izolyator" had orders amounting to only 1.2 million DM, corresponding to about one month's production. This very small backlog of orders made reasonable and efficient planning extremely difficult, and increased the difficulties which resulted from other measures.

5. In March 1949, the following orders were accepted from Yugoslavia:

500 Hg high-pressure lamps (150, 200, and 500-watt)
500 spectral lamps
500 neon tubes
12,000 stabilizers
60,000 small glow lamps
2,000 Heissleiter
about 250,000 resistors

Many of these orders were completed but were never shipped, because of the political tension between Yugoslavia and the Soviet Union. These added to the already large stock of unsalable finished products, which, between June and August, increased to goods amounting to 6 million DM of which only 3 million DM could be marketed.

6. In April, OSW received new Russian orders to supply the following:

Radio tubes of types 6 AC 6 and 5 D 21
10,000 sets of superheterodyne tubes 6 SA 7, 6 Q 7, 6 H 6, 6 L 6, 6 V 6, 6 E 5, 6 J 6, 5 Z 4
1,200 metal-ceramic tubes
600 impulse tubes

600 metal clystrons for 3-cm wavelength
10,000 tubes type TS 41
1,000 voltage dividers, 30-100 cm
100 multipliers for film-scanning devices (Vervielfacher für Filmabtaster)
300 grid-controlled rectifiers
1,000 low frequency rectifiers
1,200 glow cathode rectifiers, 80 - 230 KW
120 X-ray tubes, 200 KW, for therapy and material examination
150,000 tubes type 6 AC 7
160 sets of transmitting tubes, type R 566 with rectifiers
Also 3,000 tubes, type AL 4 monthly

7. Ten measuring instruments for each of the following were to be furnished for the main section of the Postal and Communications Systems: field intensity, quality coefficient, waves, sensitivity and heterodyne waves between 30 and 100 cm.

8. Of the total, the following items were to be set aside for reparations:

150 glow cathode rectifiers for 200,000 V
100 discharge tubes
10,000 stabilizers
1,000 Heissleiter
25,000 HF pentodes
20,000 tubes, type 6 AC 7
500 impulse tetrodes
50 blue-trace tubes

9. In September 1949, another plan to operate in two shifts, starting on 1 January 1950, was formulated. Orders were supposed to reach a total of 35 million. The following orders were anticipated for the time after 1 July 1949:

(Items marked X have now also been released to the German market.)

X Rectifier tubes	5 Z 4	20,000
X Duodiodes	6 H 6	1,500
X Triodes	6 V 6	15,000
X	6 L 6	3,000
X	6 J 5	15,000
Pentodes	CL 4	25,000
X	6 SK 7	20,000
X	6 AG 7	15,000
X Technical Rectifiers	AG 1006	2,500
Technical triodes for cm-waves	LD 12	1,000
	LD 11	500
	LD 9	500
	LD 6	100
X Hexodes - Octodes	6 SA 7	150,000
X Short wave triodes	TS 41	3,000
Tetrodes	5 D 21	500
X Compound tubes	6 E 5	1,500
	6 SQ 7	20,000
Transmitting tubes	RS 566	100
	RS 558	100
	RS 255	20
Cathode tubes of various types		700
Multipliers		20
X Low tension rectifiers		200

X Resistors	0.25-watt	500,000
	0.5 "	100,000
	1.0 "	100,000
	2.0 "	50,000
	Special manufacture	100,000
	Wire resistors	50,000

10. Calculated in DM (Ost), the following production was achieved in 1949:

Radio tubes	5 million
Special tubes	3.5 "
Tungsten and molybdenum products	1.2 "
Other products	1.1 "
Reparations	4.0 "
Total	14.8 "

Since no comparative figures are available, the above tabulation does not allow any conclusions. It does not show the actual volume of production or whether the production was actually sold. It is known that at the end of the year the enterprise had a stock of goods worth 3 million DM (Ost) for which no market existed. The firm at that time had to sell raw materials in value of 400,000 DM to gain liquid assets.

11. Even the unpublished balance sheet for 1949 does not clarify the matter. According to that balance, OSW made the following deliveries during the year:

Reparations	3.5	million	DM	(Ost)
Military organizations	3.9	"	"	"
Komendatura, Berlin	0.5	"	"	"
German market	5.5	"	"	"
Export	0.15	"	"	"
Special purposes	0.05	"	"	"
Total	13.6	"	"	"

According to this account, then, there is a difference of 1.2 million between the production (14.8) and deliveries (13.6) for which there is no adequate explanation. There is also no information regarding the unsalable stock of goods worth 3 million DM. Neither is the amount of reparations apparent from these accounts. The categories "Military organizations", "German Market", "Export" and "Special purposes" probably contain considerable amounts of goods actually used for reparations. It must also be taken into consideration that the Russian plan prices (i.e. reparations prices) are considerably lower than sales prices. Often in fact they are lower than cost prices. The difference between plan prices and sales prices varies, but is generally from 25 to 33%.

12. Difficulties in the procurement of essential materials were caused mainly by the following:

a. The effects of the counter-blockade, combined with currency difficulties.
b. Insufficient production in the East Zone.
c. The extremely poor quality of East Zone production.
d. The lack of delivery of promised Russian materials.

The amount of parts and materials that could be smuggled in from Western Germany was entirely insufficient. After the end of the blockade, the situation did not change materially, since the necessary Western currency - about 500,000 DM (West) - was granted by the Russians only reluctantly and in small amounts. With the economic improvement in the West, the necessity for compensation deals was eliminated there, and hence the possession of Western currency became of even greater importance to East Zone firms. Where it was lacking, the difficulties in the supply of raw materials became increasingly great.

The following materials cannot be obtained in the East Zone:

Rare gases, such as neon, xenon, and krypton
Certain sheet metals, particularly thin plate and special purpose sheets made from such metals as copper, copper-silicon, nickel, NCT (nitrogen-carbon-tantalum), molybdenum, tungsten and Sicromal
Barium for stabilizers
"Hydrokollag"
Spec

Measuring instruments
Spiral drills and hard metal tools.

13. Attempts to furnish these materials from East Zone production have not been successful. Such items as were produced were as unusable as a great deal of the remainder of the East Zone production. Primarily the materials lack the high grade of purity that is essential for high-frequency equipment. As far as possible, the delivered materials were converted locally to meet necessary specifications, but only after considerable expense and loss of time. Some nickel and copper anodes were up to 60% impure, as were nickel sheet metal and the tungstic acid delivered by I.G. Farben, Bitterfeld.

Often materials do not even come up to the specifications furnished by the producer, a situation which was rare in pre-war Germany but has now become universal in the Russian Zone.

14. Also unusable to a high degree were ordinary sockets, tube sockets, pig iron castings, screws, nuts, rivets and high-frequency ceramics. The latter are sometimes up to 70% useless. As a result, further deliveries from seven firms were stopped in June and OSW attempted production on its own. Only the attempts to make emission paste have so far proven successful.

15. The Russians are planning to produce all essential materials within the combine. In March 1949, OSW was supposed to add the following shops to its Production Division:

A glass works
A plastics shop
A foundry
An automatic lathe shop for making screws
A cold rolling mill for rare sheet metals, and
A rare gas production plant.

By the end of the year, however, none of these plants had actually been added. Nor did the Russians furnish any of the materials they promised. It is very questionable whether these planned additions would improve the existing situation materially; the real cause for the shortcomings is more likely to be found in the collectivist structure of the Soviet system. The meeting of eastern and western practices has, at least in this instance, not led to a successful compromise.

Research and Development

16. Although the Research Division was not affected by the materiel difficulties to the same extent as the Production Division, the constant changes, the contradictory policies of the personnel section, and the constant reorganization of production nevertheless have had an unfavorable effect upon research. Some of the negative effects have already been mentioned in the section on personnel. Aside from the contradictions between eastern and western concepts of research, it was the prevailing personnel policies that accounted for the excessive turnover in the Research Division. In addition, the great fear of espionage closed off the research personnel, not only from the outside world, but even from normal exchange of opinions within the plant.

17. In 1948, the research originally scheduled was not completed because of these difficulties. The schedules had to be changed frequently in order to complete all of the projects, at least on paper. Projects which had been set up only in a laboratory state and only in theory were counted as completed, even though everyone realized that the adaptation of the laboratory solution to efficient production would necessitate a considerable additional effort. This "short cut" was used, for instance, for the metal-ceramic triode, the zero slot magnetron, the universally adjustable transmitter and the mercury high-pressure lamp.

18. The situation has not improved during 1949. It has, if anything, deteriorated. To begin with, the Russian research allocations were reduced from 5 million DM (Ost) to 2.5 million at a conference in Babelsberg on 24 January 1949. At that conference, the Russians objected to the slow research methods of the German scientists and to their high salaries. In the future, a production premium system is to replace the standard salaries. Three months earlier, the Russians held just the opposite point of view. At that time, they wanted to favor the scientists in every respect so that even those in the West Sector would be attracted.

a. The research program was divided so that all projects dealing with wave lengths over 3 cm would be carried out in Russia. The original proposed research program follows:

(1) High performance oscillographs for 150,000 km/sec: continuation of research on equipment and tubes.
(2) Research on the suitability of high performance cathode ray tubes in the cm (centimeter) and dm (decimeter) range.
(3) Oscillographic presentation of the cm and dm waves.
(4) Measuring of impedance of 3 cm and 10 cm waves; continuation of the present work.
(5) Measuring the loss of detectors in measuring circuits.
(6) Measuring static noises of detectors.
(7) Noise diodes for 0.8 cm - 2 cm wave range; subdivided into four ranges.
(8) Wave meters.
(9) Watt meters.
(10) Stichleitung.
(11) Measuring circuit (Messleitung).
(12) Magnetic field tubes.
(13) Spectral analyzers # 8 - 13, under the same conditions as # 7.
(14) Heterodyne wave meters.
(15) Measuring instruments for quality coefficients.
(16) Noise measurement sets.
(17) Voltage dividers # 14 - 17 for 3 - 10 cm wavelengths.
(18) Ferrographs, for measuring hysteresis loops for small amounts of magnetic material or materials with slight magnetic properties.
(19) Double magnetic variometer with ferrite core, probably for remote control.
(20) Continuation of research on crystal detectors.
(21) Continuation of research on technical ceramic compounds.
(22) Development of television cathode ray tubes with equipment (3-inch).
(23) Research on a measuring multiplier (Messvervielfacher) with tubes and equipment.
(24) Research on polar coordinate cathode ray tubes, television tubes and equipment.
(25) Further research on large projectors, tubes and equipment.
(26) Improvement of television systems from 625 to 900 lines.
(27) Development and construction of an electric oven for 3,000° C.
(28) Development of a machine for the automatic soldering of parts of a tube on a press plate.
(29) Construction of a machine for the automatic production of press plates.
(30) Construction of automatic pumps for luminescent tubes (Leuchtstoffröhren).
(31) Construction of machines for the automatic mounting of tungsten filaments of 11 µ in cathodes.

Of all these projects, # 2 - 4 and 14 - 17 were eliminated in accordance with the results of the Babelsberg conference cited above.

b. Additional research projects assigned during 1949 are as follows:

(1) Development of transmitter tubes for Russian Zone broadcasting stations.
(2) Further research on detector amplification on a Germanium basis.
(3) Further research on electron microscopes.
(4) Further research on measuring instruments for field intensity from 0.1 to 100 megacycles.
(5) Development of a Betatron - not completed for lack of qualified personnel.
(6) Development of a 36-part automatic melting oven (Einschmelzautomat).
(7) Further development of radar according to the impulse system.
(8) General research on the following projects: quartz clocks, atomic clocks, "Dämpfungsschreiber", frequency meters, potentiometers for 8 kilocycles, and remote control equipment.

19. While in 1946, 1947 and 1948 five million marks were available for research, the Russians curtailed the original appropriation to 2.5 million but finally allowed 3 million DM (Ost) for research in 1949. The allocation for 1950 was cut to 1.5 million. These appropriations are made for research tasks assigned to the plant directly. However, others must be added which are assigned indirectly via other firms or through government offices.

20. Since it was not possible to get details on the status of the various research projects, no analysis can be furnished. All files on research work are kept secret. Only the following men have access to them:

SECRET

CENTRAL INTELLIGENCE AGENCY [redacted] 25X1

Dr. Hachenberg, as Chief of the Research Division,
Dr. Steudel, as Chief of the Archives and Technical Reports Department,
Herr Lorentz, as Technical Director, and
Chief Engineer Eichhorn, who has partial access as Chief of the Planning Section.

The actual research personnel have knowledge only of their own work on a particular project.

SECRET